CLAIMS

1. A zinc-based alloy electroplated film containing:

(A) 30 to 96% by weight of zinc,

(B) 2 to 20% by weight of an iron-group metal, and

(C) 2 to 50% by weight of tungsten.

2. The zinc-based alloy electroplated film according to claim 1, wherein the iron-group metal (B) is iron.

3. The zinc-based alloy electroplated film according to claim 1 or 2, which further contains 1 to 30% by weight of a corrosion-inhibiting pigment and/or ceramic particles.

4. The zinc-based alloy electroplated film according to claim 3, wherein the corrosion-inhibiting pigment is at least one selected from the group consisting of phosphate salts, molybdate salts, metaborate salts, and silicate salts.

5. The zinc-based alloy electroplated film

according to claim 3, wherein the ceramic particles are particles of at least one member selected from the group consisting of Al_2O_3, SiO_2, TiO_2, ZrO_2, Y_2O_2, ThO_2, CeO_2, Fe_2O_3, B_4C, SiC, WC, ZrC, TiC, graphite, graphite fluoride, BN, Si_3N_4, TiN, Cr_3B_2, ZrB_2, $2MgO \cdot SiO_2$, $MgO \cdot SiO_2$, and $ZrO_2 \cdot SiO_2$.

6. The zinc-based alloy electroplated film according to any one of claims 1 to 5, which further contains at least one organic compound selected from the group consisting of alkynes, alkynols, amines or salts thereof, thio compounds, aromatic carboxylic acid compounds or salts thereof, and heterocyclic compounds in the plated film in an amount of 0.001 to 10% by weight in terms of C (carbon) content.

7. A plated metal material, which has the zinc-based alloy electroplated film according to any one of claims 1 to 6.

8. A plated metal material, wherein the zinc-based alloy electroplated film according to any one of claims 1 to 6 is formed on a metal material and then is brought into contact with an acidic aqueous solution containing at least one element selected from the group

consisting of cobalt, nickel, titanium, and zirconium.